

**What is claimed is:**

1. A current control apparatus for fluorescent lamps adopted  
for used on a fluorescent lamp actuated by a high voltage to  
maintain an even current in the fluorescent lamps comprising  
5 a high frequency pulse modulator to obtain a feedback signal  
from a signal processor to output a pulse width modulation  
(PWM) resonant frequency signal to modulate a power switch  
to output an actuation signal which is transformed by a  
conversion unit to actuate a piezoelectric transformer,  
10 wherein:

the fluorescent lamp is divided to a positive phase fluorescent  
lamp and an inverted phase fluorescent lamp, the positive phase  
fluorescent lamp outputting a first current signal and the negative  
phase fluorescent lamp outputting a second current signal, the first  
15 current signal being at the positive half cycle while the second  
current signal being at the negative half cycle, the signal processor  
processing the first current signal at the positive half cycle and  
generating a current compensation signal to the high frequency  
pulse modulator which outputs a resonant frequency to control  
20 current variation of the fluorescent lamp; the first current signal  
being at the negative half cycle while the second current signal  
being at the positive half cycle, and the signal processor  
processing the second current signal at the positive half cycle and  
generating another current compensation signal to the high  
25 frequency pulse modulator which outputs another resonant

frequency to control the current variation of the fluorescent lamps.

2. The current control apparatus of claim 1, wherein the fluorescent lamp is a cold cathode fluorescent lamp.

3. The current control apparatus of claim 1, wherein the  
5 conversion unit is an inductor.

4. The current control apparatus of claim 1, wherein the signal processor is a differential rectification circuit.

5. The current control apparatus of claim 1, wherein the signal processor is full-wave rectification circuit.

10 6. The current control apparatus of claim 1, wherein the current compensation signal is a full-wave rectification signal.

7. The current control apparatus of claim 1, wherein the positive half cycle and the negative half cycle have a phase angle difference of 180 degrees.